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NOTES ON LONG ISLAND BIRDS.

BY JOHN T. NICHOLS, ROBERT C. MURPHY AND LUDLOW GRISCOM.

THERE is much interest to be obtained from thorough study of the birds of any one region, especially when such study is prolonged over a period of years and comprises the results of numerous observers.

From various and diverse lines of endeavor we always return to a consideration of the avifauna of Long Island, New York, with unabated enthusiasm.

An obvious line of inquiry in this connection is to determine the dates between which the various migratory species are found on the island. Such dates may be of two kinds, those of normal or average occurrence, and extreme dates. Though perhaps of less importance the latter are the more tangible. In determining normal dates it is remarkable with what facility any one observer in any one year may overlook certain species. Satisfactory migration dates cannot well be obtained simply by collecting. A vast number of birds would have to be killed to get anything like good results by this method alone.

The tables in Eaton's 'Birds of New York,' 1909, furnish a valuable statement of extreme migration dates on Long Island, but the status of the various species is naturally enough not discussed in any great detail. Braislin's annotated list (1907), though easier to refer to, is less complete and therefore unsatisfactory in this respect. For present knowledge of migration dates on Long Island, ornithologists are as much indebted to the records and compilations of Mr. William Dutcher as of all other observers taken together.

Long Island has always been considered as a whole. In our opinion there are advantages in treating it otherwise. The waterfowl especially are notably different in their occurrence and numbers at the eastern and western ends of the island. The earliest fall migrants are almost invariably recorded at the eastern end of the island, and many waterbirds linger there much later than at the western end. At first sight this may appear only natural as the

migration route follows the coast-line, roughly speaking. With many of the waterbirds, however, this is not the case. Too many species arrive in spring at the eastern end of the island either before they are recorded at the western end, or in the case of the rarer species they are not recorded at all at the western end. It is accordingly our belief that the majority of the water-birds never see the western end of Long Island, but fly across the ocean to the New Jersey coast. In this connection it is interesting to note that waterbirds are apparently much more numerous on the southern half of the Jersey coast than the northern, indicating possibly more exactly the route taken. Undoubtedly civilization and its attendant evils from the bird's point of view have done much to bring this state of affairs about.

The land birds also furnish interesting corroborative evidence. The outer beaches of the south shore are a favorite migration route with them, and any type of land bird is apt to be found in the bayberries or in the beach grass. Land birds are abundant in the migrations on Fire Island Beach, common on Jones Beach, noticeably less so on Long Beach, and their numbers are insignificant at Rockaway Beach which furnishes much better country for them than Long Beach. During the trips to and from Europe that one of the authors has made during the migrations, land birds have invariably boarded the vessel off Long Island, as far west as Long Beach, but never farther west. There seems then to be excellent evidence to indicate an over sea flight on the part of the land birds as well. Still further evidence is supplied by the study of the records of accidental or casual southern species. It is well known that such wanderers attach themselves to bands of migrants for the sake of company. The great majority of such species recorded for Long Island have been taken at the eastern end of the island.

In the second place, Long Island is sharply divided geologically into a northern and southern half by the terminal moraine. The flora of the two sections is pronouncedly different, and the avifauna is slightly so — about as much difference as there is between the Piedmont and the coastal plain regions of New Jersey. Due to the formation of the coast, the waterfowl are much less abundant on the north shore.

To recapitulate:

1. Birds much commoner at the eastern end of the island than the western: Three Grebes, the Red-throated Loon, the Alcidae, the Jaegers, the Glaucous Gull, Laughing Gull, the Terns, the Shearwaters, Leach's Petrel, most of the Anseres, the Cormorants, the Bittern, Coot, Phalaropes, Dowitcher, Stilt Sandpiper, Knot, Purple Sandpiper, White-rumped Sandpiper, Baird's Sandpiper, Golden Plover, Rough-legged Hawk, Bald Eagle, Duck Hawk, Fish Hawk, Short-eared Owl, Snowy Owl, Snow Bunting, Lapland Longspur, Cliff Swallow.

2. The following water-birds are equally common at both ends of the island: Loon, Kittiwake, Gannet, Red-breasted Merganser, Black Duck, Scaup Duck, Old-squaw, White-winged and American Scoters, Canada Goose, Brant, Herons, the commonest shore-birds.

3. The following are commoner at the western end: Great Black-backed, Herring, Ring-billed and Bonaparte's Gulls, Clapper Rail, Sora, Florida Gallinule, Orchard Oriole, Seaside Sparrow. From this list are excluded several of the rarer land-bird migrants, the greater number of records from the western end of the island being due to the greater number of observers.

4. Species which have increased in numbers at the western end of the island in the last few years due largely to the abolition of spring shooting: *A.* Red-breasted Merganser, Black Duck, Scaup Duck, all three Scoters, Canada Goose and Brant. All but the last two now stay in numbers until the end of May. The Black Duck now probably breeds as far west as Long Beach. *B.* Formerly very rare, now regular in spring are the Dowitcher, Knot and Red-backed Sandpiper. *C.* Greatly increased in numbers are especially the Hudsonian Curlew, Black-bellied Plover, Piping Plover and Turnstone. The Piping Plover now probably breeds as far west as Jones Beach, where pairs are seen the very end of May. Much less common in the fall.

In the present paper, we have also gathered together a few records which we hope will be of service to the numerous observers now interested in Long Island birds.

Podilymbus podiceps. **PIED-BILLED GREBE.**—Unusually numerous in the fall migration of 1916; about 20 were observed in one day (Sept. 18) in the East Bay at Mastic. One observed on Prospect Park Lake, Brooklyn, Oct. 12.

Gavia immer. LOON.— Observed as late in the spring as June 1 (1907, Mt. Sinai) and we presume in fall migration July 9 (1911, Mastic). Mr. W. T. Helmuth reports this species from Easthampton July 6 to 7 (1915). Perhaps these early July birds should be considered as summering or even as stragglers from the spring migration. One, in immature plumage, was seen off the Mastic beach on June 24, 1916. Migrating Loons fly with the bill open. Doubtless so heavy and short-winged a bird requires a great deal of oxygen for protracted flight. The migration of the Loon is a very interesting and irregular one. The species arrives from the north early in August, so far as we know young birds as well as adults, and is frequently met with through the month. A lull then ensues, and during September and October the Loon is usually decidedly uncommon. There is frequently a flight early in November. After another lull the main flight of the fall takes place the latter part of December, and usually by the first of January the wintering individuals are left behind. Their numbers vary greatly in different parts of the island from year to year. The spring migration starts with the first mild weather in March, increasing steadily until the last week of the month and the first week in April, when the species is abundant, traces of the summer plumage being evident. From this time till the 20th of May, very few Loons are seen, at least at the western end of Long Island. Those seen are usually still in the winter plumage even in the middle of May. From May 20 to June 1, there is another big migration of Loons mostly in full summer plumage. They are most abundant from May 24 to May 28, and a few days later only stragglers remain.

Gavia stellata. RED-THROATED LOON.— Six white-throated birds observed off Herod's Point, on the Sound, on August 24, 1905. They were observed from a blind on the beach, and came within thirty feet of the observer. (R. C. M.)

Alle alle. DOVEKIE.— Specimens have recently been sent from Montauk Point to the Brooklyn Museum, as follows: 1 on February 25, 1916; 1, a female, on April 3, 1916; 1, a female, on May 29, 1916. The last bird was perfectly fresh when picked up dead on the beach. Mr. A. H. Helme tells us of Dovekies shot off the south shore of Long Island in June. Mr. W. S. Dana, of Mastic, has a mounted specimen which he collected in Forge River, Moriches Bay, in August, 1913. December 11, 1909 (10 miles off Shinnecock) two hundred seen, apparently the largest number seen in Long Island waters.

Rissa tridactyla tridactyla. KITTIWAKE.— October 13 and 27, 1912 (Long Beach) are the earliest fall dates. The fall of 1912 was characterized by the early arrival of an unusual number of northern species.

Larus hyperboreus. GLAUCOUS GULL.— Recent records for western Long Island are as follows: January 8, 1912 (Manhattan Beach) W. H. Wiegmann; February 12, 1912, March 3, 1912, (Long Beach).

Larus marinus. GREAT BLACK-BACKED GULL.— May 13, 1910 (Long Beach) and April 8, 1912 (Gardiner's Island) latest spring dates.

Larus philadelphia. BONAPARTE'S GULL.— May 19, 1912 (Long Beach) latest spring record.

Larus atricilla. LAUGHING GULL.—A specimen from Great Neck, October 8, 1916, is the latest we know of except for the October 28, 1880 record mentioned by Cooke. Probably the Laughing Gull normally occurs on Long Island shores until about the last of September. May 17, 1911 (Long Beach) recent spring record.

Sterna dougalli. ROSEATE TERN.—During 1915 and 1916 this species has been much more abundant than generally in recent years at the eastern end of Long Island. Specimens collected at Montauk on August 8, 1915, had young mackerel in their stomachs.

Sterna antillarum. LEAST TERN.—Mr. Robert W. Peavey, of Brooklyn, found a pair of Least Terns at Seaford on June 25, 1916. They flew around him closely, approaching within fifteen feet of him, and acted as though they were breeding.

Puffinus borealis. CORY'S SHEARWATER.—

Puffinus gravis. GREATER SHEARWATER.—Abundant off Montauk Point on August 8, 1916, when seven specimens of each species were collected by Mr. Francis Harper and one of the writers.

Puffinus griseus. SOOTY SHEARWATER.—One observed on the water off the beach at Mastic, October 13, 1913. It was attacked by the numerous gulls present and driven back onto the water whenever it attempted to take wing.

Oceanites oceanicus. WILSON'S PETREL.—Twice seen over the sound from the shore at Port Jefferson, each time in September. Many seen from the shore at Eaton's Neck on the Sound, on July 25, 1915. Several collected from the shore at Montauk, during a storm on August 4, 1916. Occasionally numerous off the ocean beach, as on June 30, 1913, when it was estimated that at least a thousand were within binocular range at one time, from a point on the crest of the dunes at Mastic. Many of their feathers were scattered along the line of wash on the beach, particularly primaries, with some tail-feathers, so they were evidently in active molt. Occasionally in summer one sees a few Wilson's Petrels over Great South Bay well inside of Fire Island Inlet.

Sula bassana. GANNETT.—May 25, 1914, (Mastic) appears to be the latest spring date for this species. December 11, 1909 (off Shinnecock), December 27, 1912 (Long Beach) January 5, 1913 (Long Beach), are recent winter records.

Phalacrocorax auritus auritus. DOUBLE-CRESTED CORMORANT.—March 31, 1912 (Long Beach) the earliest spring record; December 14, 1913 (Long Beach) is a recent winter record; July 12, 1911 (off Rockaway Pt.) a recent summer record.

Mergus americanus. AMERICAN MERGANSER.—April 8, 1912 (Gardiner's Island) the latest spring record.

Mergus serrator. RED-BREASTED MERGANSER.—Now remains regularly until the end of May, May 25, 1913 (Jones Beach) being the latest date, over a hundred being then observed.

Anas platyrhynchos. MALLARD.—

Nettion carolinense. GREEN-WINGED TEAL.—

Spatula clypeata. SHOVELLER.—

Dafila acuta. PINTAIL.—

Marila valisineria. CANVASBACK.— In spite of the in some respects backward fall migration this year (1916), many Ducks reached Long Island unusually early, and our earliest dates for the following species, except the Shoveller, were obtained at Mastic. Mallard, two or three, and one Pintail, August 21; Green-winged Teal, a few, September 4. All three species observed with Black Duck. Canvasback, October 11, and Shoveller October 14 (one and two respectively killed by Dr. Rolfe Floyd). The earliest date for Shoveller is October 1 (1913), Quogue, a male and female killed from a flock of three by Mr. H. F. Stone. The rarity of this duck perhaps accounts for its not having been recorded from the island earlier in the season. The Mallard occurs occasionally in winter as well as in migrations. A Mallard observed at Long Beach, March 26, 1911, by Messrs. C. H. Rogers, Ludlow Griscom and G. E. Hix, we consider the earliest spring date. The Pintail in 1916 either wintered or lingered very late in unusual numbers. It was repeatedly observed during December on the lake in Prospect Park, Brooklyn. A flock of about a dozen were observed December 16 at Roslyn and another of thirteen individuals was seen December 24 near East Rockaway.

Mareca penelope. EUROPEAN WIDGEON.— One drake April 5-7, 1912 (Gardiner's Island) has not been recorded.

Chaulelasmus streperus. GADWALL.— A fine drake shot by Mr. Samuel Bettle at the South Side Club, November 27, 1914. Two drakes were shot by Mr. Edwin Thorne at the South Side Club, Oakdale on December 13, 1916, and a female was also killed by another member of the club.

Marila americana. REDHEAD.— Two, March 12, 1911 (Long Beach), a recent spring record for western Long Island.

Marila marila. SCAUP DUCK.— May 30, 1911 (Long Beach) latest spring date.

Marila sp. SCAUP.

Charitonetta albeola. BUFFLEHEAD.

Oidemia americana. AMERICAN SCOTER.

Oidemia deglandi. WHITE-WINGED SCOTER.

Oidemia perspicillata. SURF SCOTER.— Crippled ducks of various species are of course to be found on Long Island during the summer. Individuals of non-breeding species which can not be classed as cripples also occasionally occur. Such are a Scaup over the Narrow Bay, June 26, 1915, a female or immature plumaged Bufflehead May 13, 1916, and a male Bufflehead in summer a few years previously, all observed on the wing at Mastic. Three American Scoters, of which one acted like a cripple, were seen off False Point, Montauk, on August 8, 1915; a White-winged Scoter lay a short distance off shore at Eaton's Neck, on the Sound, for the greater part of the week ending August 6, 1916. Six were seen together off Rocky

Point on August 23, 1905. Over a hundred White-winged and Surf Scoters were seen between Roanoke Point and Orient Point, on June 27-30, 1906. The White-winged Scoter has been observed at Mastic as late in the spring migration as May 23, 1914. Probably non-breeding birds of any of the three Scoters may spend the summer off Long Island. All three species remain regularly until the end of May, the following being the latest dates, American Scoter, May 26, 1912, (Oak Island Beach), White-winged Scoter, May 28, 1911, (Long Beach) Surf Scoter, May 25, 1913 (Jones Beach).

Histrionicus histrionicus. HARLEQUIN DUCK.—Mr. W. S. Dana has an adult male Harlequin taken by him at Smith's Point, Moriches Bay, during the first week of November, 1915.

Somateria spectabilis. KING EIDER.—A female or young male was taken at Mastic early in October, 1912, by Mr. W. S. Dana, who still has the skin.

Branta canadensis canadensis. CANADA GOOSE.—February 12, 1912 (Long Beach) sixty-nine, January 18, 1914 (Long Beach), and February 22, 1914, (Montauk) are recent winter records.

Wintered in unusual numbers in 1914-15; a flock of about four hundred birds observed at Mastic, January 30, 1915.

Branta bernicla glaucogastra. BRANT.—February 12, 1912 (Long Beach), nine, January 18, 1914 (Long Beach) seventy-three; February 22, 1914, (Montauk) five; are recent winter records. On December 28, 1913 (Jones Beach) 636 birds were seen, a remarkable number so late in the season.

Olor columbianus. WHISTLING SWAN.—Mr. Wm. T. Helmuth observed three Swan at Shinnecock January 1, 1911.

Herodias egretta. EGRET.—An Egret spent the greater part of the summer of 1916, at Setauket. It was seen several times by one of the writers on July 22, before which it had been several weeks in the vicinity.

Butorides virescens virescens. GREEN HERON.—October 13 is our latest date (Port Jefferson, 1915).

Rallus crepitans crepitans. CLAPPER RAIL.—January 28, 1912 (Long Beach), two, a recent winter record.

Fulica americana. COOT.—The only winter record we know of is a single bird observed at Mastic, February 12, 1916.

Steganopus tricolor. WILSON'S PHALAROPE.—Mr. H. F. Stone of Lawrence has in his collection an immature bird taken there this year (August 19, 1916).

Macrorhamphus griseus griseus. DOWITCHER.—May 24, 1914 (Jones Beach) twenty-eight, a recent spring record near New York City.

Tringa canutus. KNOT.

Ereunetes pusillus. SEMIPALMATED SANDPIPER.

Ægialitis semipalmata. SEMIPALMATED PLOVER.—May 26, 1912 (Oak Island Beach) one; May 25, 1913 (Jones Beach) two; May 24, 1914 (Jones Beach) four; are recent spring records for Knot on western Long

Island. Mr. E. P. Bicknell writes that he observed "on June 22 at Long Beach (1916) a flock of twenty-one *Ereunetes pusillus* and with them one *Ægialitis semipalmata* and one *Tringa canutus*." This is the latest spring date for all three species.

Arquatella maritima maritima. PURPLE SANDPIPER.—Three seen November 9, 1912 (Manhattan Beach) by W. H. Wiegmann.

Pelidna alpina sakhalina. RED-BACKED SANDPIPER.—Ninety-six, May 25, 1913 (Jones Beach), an unusual number for so rare a spring migrant.

Calidris leucophæa. SANDERLING.—January 4, 1910 (Long Beach) and December 4, 1913 (Long Beach) are recent winter records. A red-breasted specimen was shot by one of the writers from a flock on the sea beach north of Great Pond, Montauk, August 3, 1915.

Limosa fedoa. MARBLED GODWIT.—Now rarer than the Hudsonian Godwit. Two were shot by Mr. W. S. Dana on Moriches Beach, August 10, 1910, and the skin of one preserved.

Limosa hæmastica. HUDSONIAN GODWIT.—

Tryngites subruficollis. BUFF-BREASTED SANDPIPER.—The status of these two rare shore-birds on Long Island seems not to have changed appreciably in the last twenty-five or thirty years. There was a Buff-breasted Sandpiper in the collection of the late deL. Berier from Gowanus Bay presumably in the late eighties, though it bears no further data. We learn that the 1888 specimen recorded by Dutcher (Auk 1889) as from Mastic was collected by Dr. Rolfe Floyd. Messrs. Wm. T. and J. L. Helmuth inform us that two have recently been taken near Easthampton, viz. on September 7, 1910, and September 4 (Sagaponack Beach, Bridgehampton), 1916. In a letter recently received, Mr. W. F. Hendrickson writes that his brother (Mr. J. H. Hendrickson) reports "five specimens of the Buff-breast within the past few years." Probably Hudsonian Godwit stragglers occur each year—we know of one (an adult taken at Mastic August 21, 1915, and another (immature) taken at the same place October 6, 1916.

Bartramia longicauda. UPLAND PLOVER.—Reported by Mr. Henry Thurston from Floral Park, October 20, 1916, the latest Long Island date.

Actitis macularia. SPOTTED SANDPIPER.—April 21, 1912 (Long Beach) earliest spring arrival.

Numenius hudsonicus. HUDSONIAN CURLEW.—Long Beach, May 31, 1914, C. H. Rogers, is the latest spring date of which we know.

Squatarola squatarola. BLACK-BELLIED PLOVER.—One hundred and fifty May 27, 1911 (Long Beach); three hundred May 25, 1913 (Jones Beach); four hundred May 24, 1914 (Jones Beach); to show increase of this species in the spring. Two seen at Long Beach, November 26, 1916, obviously not cripples, the latest fall date.

Ægialitis meloda. PIPING PLOVER.—Two November 7, 1911 (Long Beach) latest fall date; five pairs seen May 24, 1914 (Jones Beach).

Arenaria interpres morinella. RUDDY TURNSTONE.—Twenty-four

and one hundred and six May 27, 1911 (Long Beach); sixty May 25, 1913 (Jones Beach); fifty-five May 24, 1914 (Jones Beach).

Zenaidura macroura carolinensis. MOURNING DOVE.— March 14, 1915, near Valley Stream, is the earliest spring record.

Cathartes aura septentrionalis. TURKEY VULTURE.— Mr. Wm. T. Helmuth reports one from Easthampton on June 24, 1914. Another was seen by one of the writers at East Quogue on July 4, 1911. It is a rare bird on the island, especially so far east.

Astur atricapillus atricapillus. GOSHAWK.— An adult male was taken by Mr. F. M. Schott at Half Hollow Hills, near Melville, on November 12, 1915.

Falco peregrinus anatum. DUCK HAWK.— Apparently a late spring visitor to the Long Island marshes. Observed both 1913 and 1914 on our Shore-bird trips. On May 24, 1914, a Duck Hawk was seen giving chase to a flock of "oxeyes." It overtook the last bird, and struck at it eleven times. Each time the "oxeye" at the last moment twisted and dodged. The hawk then played the "sour grapes" act; it did n't care for "oxeyes" anyhow, and flew off to the northward.

Falco columbarius columbarius. PIGEON HAWK.— This hawk was unusually numerous in the fall migration of 1916; the last bird seen on October 15, Mastic, a very late date for the species; oddly enough, Mr. C. H. Rogers observed one at Long Beach on the same day.

Asio flammeus. SHORT-EARED OWL.— May 17, 1911 (Long Beach) is the latest spring date for western Long Island. There is a possibility it was breeding.

Coccyzus americanus americanus. YELLOW-BILLED CUCKOO.— One seen at Queens, May 7, 1916, the earliest spring date.

Sphyrapicus varius varius. SAPSUCKER.— Garden City, April 20, 1916, is our earliest date; Wading River, December 27, 1906, the latest.

Melanerpes erythrocephalus. RED-HEADED WOODPECKER.— A rare summer resident on the island. A pair of this species nested in 1896 and 1897 in an old willow tree on a lawn at Flushing. The tree was blown down, and the birds did not appear the next year.

Otocoris alpestris alpestris. HORNED LARK.— October 27, 1912 (Long Beach) is apparently the earliest fall date.

Molothrus ater ater. COWBIRD.— January 12, 1912 (Manhattan Beach) by Mr. George E. Hix is the only recent winter record for western Long Island known to us.

Plectrophenax nivalis nivalis. SNOW BUNTING.— March 26, 1911 (Long Beach) latest spring date.

Calcarius lapponicus lapponicus. LAPLAND LONGSPUR.— This species, though of regular occurrence at the eastern end of Long Island is very rare near New York City. Recent records are November 26, 1910 (Manhattan Beach) by W. H. Wiegmann and G. E. Hix; November 25, 1911 to February 11, 1912 up to 5 individuals present (Manhattan Beach); November 26, 1916, one (Long Beach).

Poocetes gramineus gramineus. VESPER SPARROW.—January 18, 1912 (Long Beach), and December 26, 1914 (East Rockaway), are recent winter records.

Passerculus princeps. IPSWICH SPARROW.—April 21, 1912 (Long Beach) latest spring date.

Passerculus sandwichensis savanna. SAVANNAH SPARROW.—May 25, 1913 (Jones Beach) the latest spring date, if not breeding.

Passerherbulus henslowi henslowi. HENSLOW'S SPARROW.—For several years we have been aware that the Henslow's Sparrow was summing rather commonly at Mastic near the landward edge of the meadows where these are quite fresh (see Bird-Lore, December, 1913), but know of no nests having been found until May 30, 1916, when one of the writers in company with Mr. Charles H. Rogers flushed a Henslow's Sparrow from a nest with eggs, in a dry field with sparse grass about a stone's throw from where the land dropped away to a tree-bordered creek. The birds had been seen in the vicinity for about two weeks previously, and when first noticed were assumed to be migrants, the locality being far removed from and quite unlike that in which the bird usually summers. The young hatched, but were found dead in the nest on June 10, very likely as a result of heavy rain. The situation was an exposed one, probably more so than that to which the species is accustomed. In this connection we note that Meadowlarks and Grasshopper Sparrows which commonly nest in such places with scant grass, build arched nests, whereas that of the Henslow's Sparrow was perfectly open.

Passerherbulus maritimus maritimus. SEASIDE SPARROW.—December 27, 1912 (Long Beach) the only winter record for the State. The three birds seen remained several weeks.

Spizella passerina passerina. CHIPPING SPARROW.—One bird observed at East Rockaway, December 24, 1916, constitutes the only winter record for Long Island known to the writers.

Melospiza lincolni lincolni. LINCOLN'S SPARROW.—One seen on the ridge north of Queens, on May 7, 1916. This is the earliest of which we know.

Cardinalis cardinalis cardinalis. CARDINAL.—Of late years very rare. A male in the cedar grove at Sheepshead Bay observed by Messrs. C. H. Rogers, and G. E. Hix, January 1, 1912, is the only recent occurrence of which we are cognizant.

Zamelodia ludoviciana. ROSE-BREADED GROSBEEK.—May 24, 1914 (Jones Beach) is the latest spring migration date for this species.

Progne subis subis. PURPLE MARTIN.—May 19, 1912 (Long Beach), one of the few spring migration dates for places on the island where the species does not breed.

Vireosylva philadelphica. PHILADELPHIA VIREO.—One observed September 28, 1913, Oyster Bay (J. T. N.) is the latest Long Island date.

Lanivireo solitarius solitarius. BLUE-HEADED VIREO.

Dendroica tigrina. CAPE MAY WARBLER.—

***Dendroica magnolia*.** MAGNOLIA WARBLER.—

***Dendroica palmarum palmarum*.** PALM WARBLER.—

***Wilsonia pusilla pusilla*.** WILSON'S WARBLER.—

***Setophaga ruticilla*.** REDSTART.—In the fall of 1916 migrating warblers lingered unusually late, and we obtained our latest Long Island dates for the following birds, all at Mastic; Wilson's Warbler, October 12; Cape May Warbler October 14; Palm Warbler and Redstart October 15; Blue-headed Vireo October 22; to these should be added the Magnolia Warbler observed at Long Beach by Mr. Griscom, October 22. Mr. C. H. Rogers observed a Palm Warbler at Long Beach on October 15.

***Helminthos vermivorus*.** WORM-EATING WARBLER.—May 18, 1912 (Prospect Park). Mr. Chas. Johnston.

***Vermivora pinus*.** BLUE-WINGED WARBLER.—July 27, 1912 (off Long Beach), an individual was seen to fly on board a transatlantic liner from the north. An interesting record to prove how early this species leaves its breeding grounds.

***Vermivora peregrina*.** TENNESSEE WARBLER.—One observed May 23, 1914, Mastic (J. T. N.) the latest spring date.

***Dendroica tigrina*.** CAPE MAY WARBLER.—May 5, 1911 (Prospect Park) Mr. Chas. Johnston; August 28, 1915 (Mastic) earliest fall date.

***Dendroica palmarum hypochrysea*.** YELLOW PALM WARBLER.—April 6, 1912 (Gardiner's Island) earliest spring date. One bird observed at Garden City, January 3, 1917 (J. T. N.) is the only winter record known to the writers.

***Seiurus noveboracensis*.** WATER-THRUSH.—April 29, 1916, (Long Beach) is our earliest spring date.

***Seiurus motacilla*.** LOUISIANA WATER-THRUSH.—April 5, 1914, (Flushing), H. S. Boyle, is the earliest spring date.

***Geothlypis trichas trichas*.** NORTHERN YELLOW-THROAT.—April 20, 1913 (Long Beach) earliest spring date.

***Anthus rubescens*.** PIPIT.—January 4, 1910 (Long Beach) is a recent winter record.

***Telmatodytes palustris palustris*.** LONG-BILLED MARSH WREN.—Three or four October 22, 1916, Mastic, were evidently not wintering birds; and are the latest migration date for the species.

***Sitta canadensis*.** RED-BREASTED NUTHATCH.—April 20, 1913, (Long Beach) earliest spring arrival.

***Hylocichla mustelina*.** WOOD THRUSH.—Wood Thrushes at Hauppauge, October 12, 1915, and Mt. Sinai, October 13, 1915 are late, but not the latest records for Long Island.